

## ***Cordylanthus orcuttianus* (Orcutt's Bird's Beak)**

### **Introduction**

The MSCP Biological Monitoring Plan (1996) does not identify any City of San Diego *Cordylanthus orcuttianus* monitoring locations. The Otay River Valley population has been monitored since 2001 due to the rarity of this species.

### **Results**

<b>Site</b>	<b>Lead Monitor/s</b>	<b>Date</b>	<b>Method*</b>	<b>Result</b>
Otay River Valley	Johnson	June 30, 2005	Permanent Plots, GPS	Permanent Plot Density = 18.83 per m <sup>2</sup> Total Population Area = 684 m <sup>2</sup>

\*Please see the *City of San Diego MSCP Rare Plant Monitoring: Field Monitoring Methods* manual for a full description of plant monitoring methods and locations.

The *C. orcuttianus* population appears to be relatively stable within the Otay River Valley monitoring area. Like many other monitored species, *C. orcuttianus* may be positively correlated with rainfall. Population counts have not been collected consistently during monitoring from 2001-2005 so a detailed analysis cannot be performed; however, numbers were generally higher in high rain years (2001 and 2003, estimated 1,000+ and 84,747 plants, respectively), and lower in low rain years (2002, when 166 plants were counted).

The monitoring methodology was revised for 2005 based on a site visit in spring 2005 during a site visit with Dr. Kathryn McEachern, who is the lead scientist for the MSCP rare plant monitoring revision. Because *C. orcuttianus* tends to occupy areas immediately adjacent trails or other disturbed areas within the Otay River Valley, Dr. McEachern recommended tracking the species in trail adjacent and non-trail adjacent areas. The revised methodology is detailed in the City's Monitoring Methods manual. The goal of the revised method is to monitor trail-adjacent vs. non-trail-adjacent population areas via permanent plot counts.

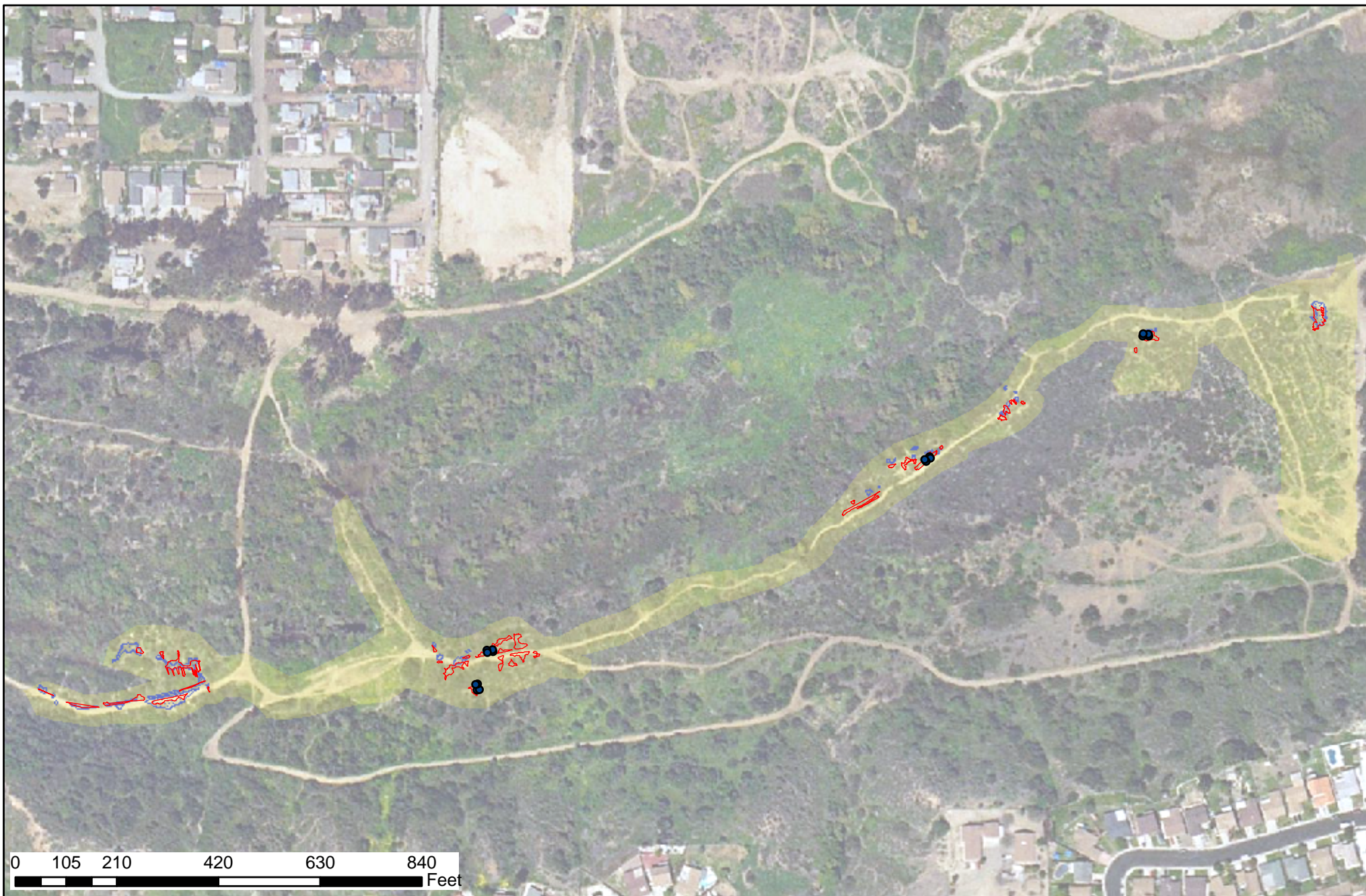
In addition, all general areas in the valley known to support *C. orcuttianus* were re-visited and mapped using a sub-meter GPS unit in 2005. Population boundaries were substantially the same as those mapped in 2003 (see figure, attached).

### **Management Recommendations**

Primary threats to *Cordylanthus orcuttianus* in the Otay River Valley are mechanized trail widening or other ground disturbance, and invasive species. A number of invasive species occur in the river valley, including *Arundo donax*, *Tamarix ramosissima*, *Eucalyptus* spp. Though none of these species are currently in the immediate vicinity of the local *C. orcuttianus* population, they should be addressed throughout the River Valley in order to preclude impacts to this rare species. A proposal has been submitted through the Transnet EMP Funding program for *Arundo donax* and *Tamarix ramosissima* control in the area.

Invasive species noted in the immediate area of the *C. orcuttianus* included *Foeniculatum vulgare* (Common Fennel), *Nicotiana glauca* (Tree Tobacco), *Bromus hordeaceus* (Soft Chess), *Avena barbada* (Slender Wild Oat) and *Brassica nigra* (Black Mustard) . These species should be controlled via mechanical and/or chemical means.

No mechanical grooming of trails or soil disturbing activities should occur in this area.



- 2005 Population
- 2003 Population
- Approximate Survey Area
- Permanent Plot Points

# *Cordylanthus orcuttianus*

## Otay River Valley

Survey Date: June 30th, 2005

Source: M. Johnson,  
J. Garcia, L. Hierl,  
K. Syverson, C. Ford

Copyright 2005 AirPhotoUSA  
LLC All Rights Reserved